

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2004/003431

International filing date (day/month/year)
19.10.2004

Priority date (day/month/year)
20.10.2003

International Patent Classification (IPC) or both national classification and IPC
F16K5/22

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/003431

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2004/003431

Box No. II Priority

1. ☐ The following document has not been furnished:

☐ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☒ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3
	No: Claims	1,2,4-7
Inventive step (IS)	Yes: Claims	
	No: Claims	1-7
Industrial applicability (IA)	Yes: Claims	1-7
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

1. Reference is made to the following document/s/:
 - D1: EP-A-0 460 865 (BTR PLC) 11 December 1991 (1991-12-11)
 - D2: EP-A-0 100 987 (ROCKWELL INTERNATIONAL CORPORATION) 22 February 1984 (1984-02-22)
 - D3: FR-A-1 200 647 (ANDRÉ FORTANE) 23 December 1959 (1959-12-23)
 - D4: US-A-3 414 002 (VOLPIN ALEXANDER S) 3 December 1968 (1968-12-03)
 - D5: US-A-2 175 867 (BALLARD HERMAN E) 10 October 1939 (1939-10-10)
 - D6: US-A-2 147 851 (MALLON FELIX) 21 February 1939 (1939-02-21)
2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.
 - 2.1 The document D1 (see col. 2, line 29 - col. 3, line 30, fig. 1, 2) discloses (the references in parentheses applying to this document):

A plug valve with improved lubrication means, comprising a valve body (1), which forms a seat (50) that is connected to an intake port (2) and a discharge port (3), and accommodates a plug-type (4) flow control element that controls said ports (2, 3), lubrication means being further provided between said seat (50) and said plug-type (4) flow control element, whereby said lubrication means comprise at least one pair of open lubrication channels (15, 16), which are provided diametrically in said plug-type (4) flow control element, and at least one pair of open lubrication ducts (5, 6), which are provided diametrically in said seat (50), said at least one pair of open channels (15, 16) being always in contact with said seat (50) during the transfer of said plug-type (4) flow control element from the open position to the closed position, and/or vice versa.
 - 2.3 Documents D2 and D3 disclose also all the features of claim 1 (see the corresponding passages cited in the search report).
3. Dependent claims 2 - 7 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in

respect of novelty and/or inventive step, see documents D1 - D6 and the corresponding passages cited in the search report.

- 3.1 With reference to claim 3, the selection of a gauge substantially identical to the gauge of ball valves is merely one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed. Moreover, since the gauge of ball valves is not a standardized measure, the definition of the subject-matter of claim 3 is not clear.

Re Item VII

1. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT)..